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Hans Morten Haugen

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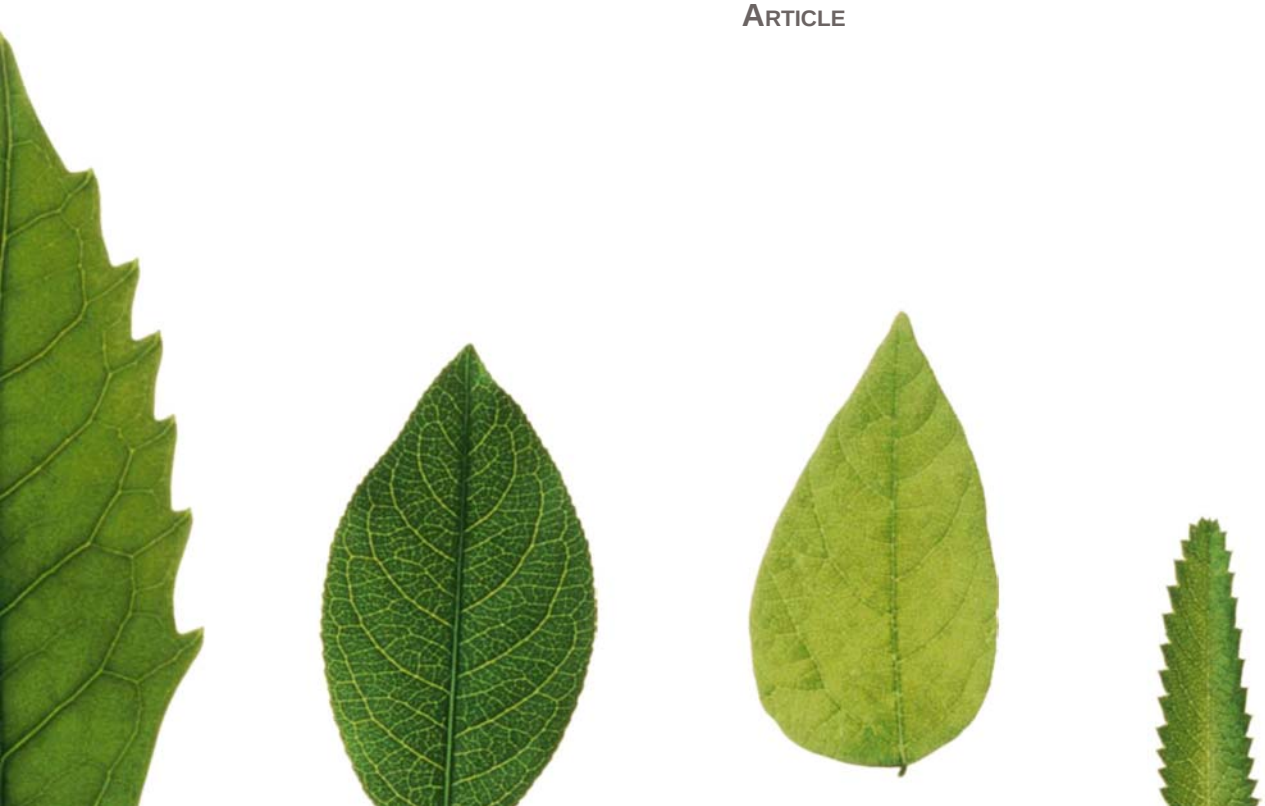

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Article

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Hans Morten Haugen, Professor, VID Specialized University, P.O. Box 184 Vinderen 0319 Oslo, Norway, Email: hans.morten.haugen@vid.no

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1 INTRODUCTION

There are several competing approaches towards appreciating nature and natural resources in the context of climate change. The first can be termed financialization, defined by the Oxford Dictionary as the 'process by which financial institutions, markets, etc., increase in size and influence.' The financialization era can be traced from the 1990s, the same decade as the market mechanisms were introduced in the Kyoto Protocol, as will be clarified below. The emergence of so-called carbon markets - encompassing a growing derivative market, essentially rewarding the best betting on future climate quota prices - has seen high profits. On the other hand, even if there might be different views on whether the carbon market has failed or simply been ineffective in moving away from a carbon economy, the many promises of such carbon markets have not materialized. Moreover, there is no likely agreement on a global carbon tax or CO_2 tax, and the many forms of resource depletion continue with inadequate tools to internalize costs.

The opposite approach is in this article referred to as rights of Mother Earth and future generations. This approach emphasizes strong obligations, making it impossible to fulfill such obligations by utilizing the various carbon markets.

Somewhere in between these two approaches, but considerably closer to the financialization approach one finds another approach, termed 'Payment for Ecosystem Services' (PES). This approach acknowledges as a problem that many of the resources that are harvested are not registered and are hence not adequately recognized. A related problem is that many harmful activities are not subject to any forms of payment or compensation.

Encompassed in the PES thinking is the emergence of REDD+ ('Reduced emissions from deforestation and forest degradation, and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks'). REDD+ has been accompanied by the development of 'safeguards' by the World Bank and other UN bodies, implicitly or explicitly building on a human rights approach. Those human rights that relate to the natural environment have inspired the articulation of rights of Mother Earth and of future generations.

These five approaches relate to various forms of governance, whose central characteristics is the participation of various forms of actors in the decision-making process.[1] Some of the approaches might also be termed regimes; to the extent that they represent 'principles, norms, rules, and decision-making procedures around which actor expectations converge in a given issue-area'.[2] Hence, I use the term approach for those norms systems that have not (yet) reached the stage of a full-fledged regime.

There are other governance models or regimes for natural resources management,[3] which will not be explored further. Moreover, the emphasis is on norms development by states and intergovernmental organization, not on initiatives by investors or international multi-stakeholder processes involving

1 Governance can be defined as 'the processes of interaction and decision-making among the actors involved in a collective problem that lead to the creation, reinforcement or reproduction of social norms and institutions'; see Marc Hufty, 'Investigating Policy Processes: The Governance Analytical Framework (GAF)' in Urs Wiesmann and Hans Hurni (eds), *Research for Sustainable Development: Foundations, Experiences, and Perspectives* (Geographica Bernensia 2010) 403. On 405-407 he specifies six requirements to be applied when studying and analyzing governance processes: realistic (non-normative); interdisciplinary, reflexive, comparative, generalisable and operational.

2 Stephen Krasner, 'Structural Causes and Regime Consequences: Regimes as Intervening Variables'(1982) 36(2) *International Organisation* 1, 2.

3 David Humpreys, 'Know Your Rights. Earth Jurisprudence and Environmental Politics'(2015) 10(3-4) *The International Journal of Sustainability Policy and Practice* 1 , distinguishing between rights of states, human rights, property rights, and corporate rights; Sabrina Safrin, 'Hyperownership in a Time of Biotechnological Promise: The International Conflict to Control the Building Blocks of Life' (2004) 98(4) *American Journal of International Law* 641, identifying global commons, individual intellectual property rights, collective intellectual property rights, and states' sovereign rights.

corporations, investors and international non-governmental organizations.[4]

The article's overall ambition is to explore the strengths and weaknesses of conservationist approaches initiated by states, alone or through intergovernmental processes, by building on two theories. First, the international regime complex theory,[5] emphasizing intergovernmental institutions. Second, the polycentric governance theory,[6] emphasizing that governance takes place at different levels, and not only by states or intergovernmental institutions.

The research question that this article seeks to answer is: *Can an offset or payment approach be useful in better conserving natural resources, or does nature require a rights-based approach, either a rights of nature, rights of future generations or traditional human rights?*

Two terms warrant further clarification. First, the term offset refers to 'an amount … that balances or compensates…'[7] Carbon offset describes payments for greenhouse gas emission reduction measures adopted by others, allowing the resulting emission reduction to be included in one's own emissions account. There are also other forms of payments, as will be shown below.

Second, the verb applied in the research question is 'conserve'. Conservation refers to '[t]he supervision, management and maintenance of natural resources; the protection, improvement and use of natural resources in a way that ensures the highest social as well as economic benefits.'[8] Hence, conservation is aligned with sustainable development, specifying that there shall be simultaneous improvement or at least no deterioration in the three pillars -ecological, economic and social. To preserve, on the other hand, is referring to keeping something as it is. In other words, preservation is considerably stricter, restricting the use of resources.

2 INTERNATIONAL REGIME COMPLEX THEORY AND POLYCENTRIC GOVERNANCE THEORY

The regime theory from the 1980s, identifying principles, norms, rules, and procedures,[9] has been supplemented by the regime complex theory, highlighting that the institutional structure in given issue-areas has become fragmented and decentralized.[10] These institutions have weak coordination and inadequate mutual information sharing. However, by highlighting only international, inter-governmental organizations, such international regime complex theory misses out on the other actors, operating on various levels in the realm of civil society and the market.

Through identifying the role played by and the influence exercised by these actors, the polycentric governance theory provides an additional theoretical insight. It is applied to identify the complex patterns of governance

4 For a comprehensive analysis analyzing various initiatives, including the Coalition for Environmentally Responsible Economies (CERES), Investors Network on Climate Risk (INCR) and Global Reporting Initiative (GRI), see Philipp Pattberg, 'The Emergence of Carbon Disclosure: Exploring the Role of Governance Entrepreneurs' (2017) 35(8) *Environment and Planning C: Politics and Space* 1437.

5 Robert O Keohane and Daniel G Victor, 'The Regime Complex for Climate Change' (2011) 9(1) *Perspectives on Politics* 7 and Kenneth W Abbott, 'The Transnational Regime Complex for Climate Change'(2012) 30(4) *Environment and Planning C: Politics and Space* 571.

6 Elinor Ostrom, 'Beyond Markets and States: Polycentric Governance of Complex Economic Systems'(2010) 100(3) *American Economic Review* 641; Elinor Ostrom, 'Polycentric Systems for Coping with Collective Action and Global Environmental Change' (2010) 20(4) *Global Environmental Change* 550; see also Elinor Ostrom and others, 'Revisiting the Commons: Local Lessons, Global Challenges' (1999) 284 *Science* 278, 279, specifying four models: open access, group property, individual property, and government property.

7 Bryan A Garner (ed), *Black's Law Dictionary* 1195 (9th edn, Thomson Reuters, 2009).

8 ibid 347.

9 Krasner (n 2).

10 Abbott (n 5) 571. He notes that the regime complex theory formulated by Keohane and Victor, (n 5) is more able to describe the present situation, with more private sector initiatives and public-private initiatives, as compared to the original regime complex theory, introduced in 2004; see Kal Raustiala and Daniel G Victor, 'The Regime Complex for Plant Genetic Resources' (2004) 58(2) *International Organisation* 277.

of natural resources,[11] increasingly in the context of climate change.[12]

Abbott, in an attempt of bringing together international regime complex theory and polycentric governance theory,[13] by the usage of terms 'conscious parallelism'[14] and 'orchestration'[15] concludes: 'Orchestration provides a way to harness the benefits of decentralization while minimizing the costs.'[16] Orchestration should be provided by an international body, proposed by him in the context of climate change to be the UN Environmental Program (UNEP). Whether UNEP is adequately strong and has an adequately encompassing mandate, is a question that is not explicitly answered by Abbott, and when he concludes, he rather applies the generic term IO ('international organisation').[17] Abbott argues that the role of IOs should be to emphasize learning between various regimes.

Keohane and Victor identify six evaluative criteria to assess regime complexes, allowing for an identification of how these regime complexes can be improved:[18]

(i) coherence, operationalized as the extent to which the different regimes within the regime complex are compatible;

(ii) accountability, operationalized as 'the right to hold other actors to a set of standards, to judge whether they have fulfilled their responsibilities in light of these standards, and to impose sanctions if they determine that those responsibilities have not been met';[19]

(iii) determinacy, operationalized as clarity of rules, in order to enhance compliance;

(iv) sustainability, operationalized as durable;

(v) epistemic embedding, operationalized as 'consistency between rules and scientific knowledge'[20];

(vi) fairness, operationalized as the adequate distribution of benefits and not acting in a discriminatory manner.

These criteria will be applied throughout the article to assess the functioning of the various regimes and approaches. One evaluative criterion will be discussed under each section, highlighting one regime: (i) coherence: carbon markets; (ii) accountability: human rights; (iii) determinacy: REDD; (iv) sustainability: PES; (v) epistemic embedding: carbon markets; and (vi) fairness: Mother Earth. As carbon markets are prevailing in international relations, carbon markets are emphasized under two of the evaluative criteria.

3 COHERENCE: NORMS COMPATIBILITY

Are the various regimes within the carbon market compatible? The requirements of being compatible are that the norms do not conflict and can be complied with simultaneously. While having compatible norms is important, the underlying quality of the norms is more important, as will be shown in the discussion below.

11 Hege Hofstad and Jacob Torfing, 'Collaborative Innovation as a Tool for Environmental, Economic and Social Sustainability in Regional Governance' (2015) 19(4) *Scandinavian Journal of Public Administration* 49, distinguishing between hierarchical governance, market-based governance and governance networks.

12 Ostrom (n 6) Beyond Markets and States; Ostrom (n 6) Polycentric Systems for Coping with Collective Action and Global Environmental Change.

13 Ostrom and others (n 6). The polycentric governance theory moves beyond the intergovernmental realm.

14 Abbott (n 5) 583, noting on p 581 that there are three levels of interactions: nesting (hierarchical; Keohane and Victor (n 5) 8 apply the term 'semi-hierarchical'), overlapping (non-hierarchical) and parallel (distinct issue areas, not being part of a regime complex).

15 Abbott (n 5) 573, defining orchestration as 'modest forms of coordination'.

16 ibid 587.

17 ibid 588.

18 Keohane and Victor (n 5) 16-17.

19 Ruth W Grant and Robert O Keohane, 'Accountability and Abuses of Power in World Politics', (2005) 99(1) *American Political Science Review* 29; another definition emphasizes 'the process of using power responsibly, taking account of, and being held accountable by, different stakeholders, and primarily those who are affected by the exercise of such power'; see Core Humanitarian Standard (CHS), *Core Humanitarian Standard on Quality and Accountability* 19 (CHS Alliance 2014).

20 Keohane and Victor (n 5) 17.

Two main types of types of carbon markets exist, the regulatory or compliance market, to which compliance is obligatory and the voluntary market. The voluntary and the compliance-based schemesalso referred to as 'cap and trade', are performance-based. Any reductions resulting from approved projects can be included in the overall greenhouse gas reporting obligations of states or corporate actors that have purchased quota derived from projects.

There are a plethora of voluntary schemes. According to the World Bank, it has established and is the trustee of 15 funds termed 'carbon initiatives'.[21] All build on the same logic of financing emission reduction projects where this can take place at the lowest cost.

Among the compliance schemes, the largest among the 21 Emission Trading Systems (ETS) established so far[22] is the EU's Emission Trading System (ETS). These are established in accordance with Article 17 of the 1997 Kyoto Protocol. Due to the too high number of quotas available on the market and the economic downturn of the European and global economy, the prize for 1 ton of CO_{2eq} in the ETS has in certain periods like inlate 2016 and early 2017 been as low as 4 Euro.

The Kyoto Protocol includes two other market based provisionsin addition to Article 17 on emissions trading, namely joint implementation as provided for by Article 6 (only for Annex B countries) and the Clean Development Mechanismas provided for in Article 12 (for Annex B countries funding emission reduction projects in non-Annex B countries).[23] The emphasis in the article will be on the emissions trading.

In addition to the market-based mechanism, there are schemes primarily financed by contributions. As specified by Article 9.8 of the Paris Agreement, 'its operating entities, shall serve as the financial mechanism of this Agreement.' These entities include the Green Climate Fund based on contributions from states.[24] The Green Climate Fund will also provide an important funding device for REDD projects, as we will come back to in Section 5 below.

How REDD+ might eventually be linked to the market mechanisms of the Paris Agreement is still not clarified, but the main funding of REDD projects will in the foreseeable future come from bilateral contributions and the Green Climate Fund. Moreover, despite opposition by a broad range of organisations,[25] the International Civil Aviation Organisation's Carbon Offset Reduction for International Aviation (CORSIA) will provide for 'carbon neutral growth'[26] using 2020 as a baseline. Under CORSIA, any CO_{2eq} emission from international aviation that exceeds the 2020 level will result in payments to climate change mitigation projects, including REDD.

It can be argued that the self-funding cap-and-trade system, being at the core of the financialization approach, - serves as a kind of indulgence, allowing one to continue omitting as long as one pays for others reducing their emissions. It is wrong, however, to assume that social and environmental concerns are totally absent from the financialization approach.

21 World Bank, *World Bank Carbon Funds and Facilities* (2014) <www.worldbank.org/en/topic/climatechange/brief/world-bank-carbon-funds-facilities> accessed 3 April 2018.

22 International Carbon Action Partnership, *Emissions Trading Worldwide International Carbon Action Partnership (ICAP) Status Report 2018* 2 (Berlin: ICAP, 2018).

23 For a collection of some of the critical reviews of the CDM-funded projects, see Hans Morten Haugen, 'What Role for Human Rights in Clean Development Mechanism, REDD+ and Green Climate Fund Projects?' (2013) 5(1) *Nordic Environmental Law Journal* 51, 60-61n58. ; Kyoto Protocol Article 12.5(c), says that CDM shall encompass '[r]eductions in emissions that are additional to any that would occur in the absence of the certified project activity.'

24 Established by the UN Framework Convention on Climate Change Conference of the Parties, *Decision 1/CP.16*. (2011), para. 102. The objectives of the Green Climate Fund of generating $100 billion annually from 2020 seems most difficult to achieve.

25 Before the ICAO decision was taken in 2016, more than 80 NGOs opposed CORSIA; see <www.redd-monitor.org/2016/04/04/more-than-80-ngos-oppose-aviation-sectors-carbon-offsetting-plans> accessed 3 April 2018; for additional criticism, see Carbon Market Watch, *Visibility Unlimited: Transparency of the new aviation carbon market* <https://carbonmarketwatch.org/wp/wp-content/uploads/2017/11/Policy-brief.pdf> accessed 3 April 2018; for nine NGOs that jointly support CORSIA, see <www.conservation.org/publications/Documents/CI_Linking-Flight-and-Forests-Briefing-Paper-Apr-2016.pdf> accessed 3 April 2018.

26 ICAO, What is CORSIA and How Does it Work? (2016) <https://www.icao.int/environmental-protection/Pages/A39_CORSIA_FAQ2.aspx> accessed 3 April 2018.

However, while human rights have been sought to be applied in the context of CDM projects,[27] human rights criteria are hardly ever applied in the context of carbon trade, as illustrated by the World Bank's approach towards eligible projects:

> all renewable energy projects should be eligible for carbon trade, regardless of the scale and size, provided that such projects meet eligibility criteria, are environmentally and socially sustainable, and are consistent with applicable domestic policies and regulations.[28]

Diversity in domestic policies and regulations implies limited possibilities of applying a common standard, both in the context of emissions trading and CDM projects.[29]

Hence, if one accepts that cost-benefit calculations is at the core of the carbon market, and also accepts that states have highly diverse regulations to ensure compliance with social and environmental standards, there is a certain degree of coherence within this dominant regime complex within climate change. The low threshold for accepting projects as eligible for being included in the carbon market is, however, a problem. For the CDM, in addition to the highly diverse domestic regulations, two main problems can be identified:

First, perverse incentives resulting from what is eligible projects on the carbon market. Projects for destruction of hydrofluorocarbons (HFCs), which is a highly potent greenhouse gas, constitute the largest share of the CDM projects (28 per cent of all Certified Emission Reductions (CER)),[30] but unlike the EU quota system, projects for the destruction of HFCs are still part of the CDM. Allowing such HFC destruction projects to receive CER has incentivised the *production* of such HFCs.

Second, many projects should not have received funding, as the emission reductions applications would have come also in the absence of CDM funding. 85 percent of the covered projects within the CDM have been found to have a 'low likelihood of ensuring environmental integrity (i.e. ensuring that emission reductions are additional and not over-estimated).'[31]

Hence, we see that while the norms within the carbon market regime might be compatible, as viewed from within the system, the rationale of these norms implies incentives for producing highly potent greenhouse gases, and funding for projects that should probably not have been funded.

4 ACCOUNTABILITY: ENHANCED COMPLIANCE

Are there in place norms systems setting out clear norms, including sanctions if a designated body determine that those responsibilities have not been met? The accountability system is not well developed in most areas of international law, including in the realm of international climate policies. Article 13 of the Paris Agreement established an enhanced transparency framework for monitoring states' compliance with their own 'nationally determined contribution' (NDC). The two Bolivian Acts on Mother Earth, that will be further elaborated upon in Section 8 below, includes an accountability system through the Defensoría de la Madre Tierra, but this office is still not mandated, as provided for in Article 10 of the 2010 Act and Article 52 of the 2012 Act.[32] In the current section we focus on human rights, which has a developed monitoring

27 Haugen (n 23) 59-63.

28 The World Bank, *What Types of Renewable Energy Projects Should be Eligible for Carbon Trade?* (2017) <https://wbcarbonfinance.org/Router.cfm?Page=FAQ#16> accessed 3 April 2018.

29 As further explained by Haugen (n 23), the environmental and social assessment of CDM eligible projects is done by the so-called Designated National Authority.

30 UNEP DTU Partnership, *CDM Projects by Type* (2018) <http://www.cdmpipeline.org/cdm-projects-type.htm> accessed 3 April 2018; the share has been over 40 per cent.

31 Martin Cames and others, *How Additional is the Clean Development Mechanism? Analysis of the Application of Current Tools and Proposed Alternatives, Study prepared for DG CLIMA* (2016) 152. Only two per cent of current CDM projects have a 'high likelihood' of environmental integrity.

32 Gabriel Díez Lacunza, *Tras 6 años de la 071, aún no hay la Defensoría de la Madre Tierra* (2016) <www.paginasiete.bo/nacional/2016/2/29/tras-anos-071-defensoria-madre-tierra-88232.html> accessed 3 April 2018.

system but weak sanctions in cases of non-compliance as compared to international trade or investment law.

This section will identify how collective right-holders are recognized and able to have their rights ensured. Some human rights must be exercised together with others in order to be meaningful, for instance, the right to take part in cultural life (Article 15.1(c) of the International Covenant on Economic, Social and Cultural Rights, ICESCR). In addition to individuals, there are four kinds of right-holders:

- families (Article 23 of the International Covenant on Civil and Political Rights, ICCPR);
- members of minorities (Article 27 ICCPR);
- co-owners of property (Article 5(d)(v) of the International Convention on the Elimination of All Forms of Racial Discrimination, ICERD);
- peoples, including indigenous peoples (common Article 1 of the ICESCR and ICCPR).[33]

Common Article 1 of the ICESCR and ICCPR has three paragraphs which recognizes self-determination (i) in the context of political, economic, social and cultural development, (ii) in the context of natural resources, and (ii) particularly for peoples of non-self-governing territories. It is, however, rights of *individuals*, and not rights of peoples that are invoked in complaints before regional courts and UN treaty bodies: the Human Rights Committee (HRC) supervising the implementation on the ICCPR, and the committees for ICERD and ICESCR.[34]

While there are few examples of human rights playing a decisive role in successful climate change litigation,[35] such cases are likely to proliferate in the coming years. The human rights of future generations also need to be taken into account when policies and programmes are reviewed with regard to their human rights impacts.[36]

The Inter-American Court of Human Rights (IACtHR) and the African Commission on Human and Peoples Rights (ACHPR) has ruled in favour of local communities by specifying the FPIC (free, prior and informed consent) requirement.[37] The most common bases both for the IACtHR and the ACHPR

33 The right to self-determination applies to indigenous peoples, see the *UN Declaration on the Rights of Indigenous Peoples (UNDRIP) (A/RES/61/295)* (2007) Articles 3-4; for a critical review of the right to self-determination of indigenous peoples, see Hans Morten Haugen, 'Peoples' Right to Self-determination and Self-governance Over Natural Resources: Possible and Desirable?' (2014) 8(1) *Etikk i Praksis / Nordic Journal of Applied Ethics* 3.

34 For an overview of some of the concluding observations and court rulings, see Hans Morten Haugen, 'The Right to Veto - or Emphasizing Adequate Decision-making Processes? Clarifying the Scope of the Free, Prior and Informed Consent (FPIC) Requirement'(2016) 44(3) *Netherlands Quarterly of Human Rights* 250 .

35 *Urgenda Foundation v. Nederland, C/09/456689 / HA ZA 13-1396*, para 4.49-4.50 (2015), discussing the scope of state obligations arising from Article 2 (right to life) and article 8 (right to family life) of the European Convention on Human Rights <https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2015:7196> accessed 3 April 2018, by applying the European Court of Human Rights' (ECtHR) *Manual on Human Rights and the Environment* 2012, <http://www.echr.coe.int/Documents/Pub_coe_Environment_2012_ENG.pdf> accessed 3 April 2018. The court ordered in para. 5.1 the Dutch government to limit its greenhouse gas emissions by at least 25% at the end of 2020 compared to 1990; the ruling is appealed by the government.
Human rights, particularly the right to health, is invoked in the Norwegian 'Arctic oil' litigation; see Greenpeace Norway and Natur og Ungdom, *Stevning til Oslo Tingrett* 41-42 (2016) <www.klimasøksmål.no/wp-content/uploads/2016/10/STEVNING-Endelig-uten-signatur-1810162.pdf> accessed 3 April 2018. Drilling permits are alleged to violate Section 112 of the Norwegian Constitution; see <https://www.stortinget.no/globalassets/pdf/english/constitutionenglish.pdf> accessed 3 April 2018. The plaintiffs have appealed to the Norwegian Supreme Court, after losing in the local court.

36 The Norwegian Constitution, ibid, says that the right to a healthy environment is to be safeguarded 'for future generations as well'. For other states' legislations and measures for taking into account the rights of future generations, see Bridget Lewis, 'Human Rights Duties Towards Future Generations and the Potential for Achieving Climate Justice', 44/3 *Netherlands Quarterly of Human Rights* 206, 221-225 (2016).

37 ACHPR, Centre for Minority Rights Development (Kenya) and Minority Rights Group (on behalf of Endorois Welfare Council) v. Kenya. 276/03 para. 226 (2009); in para. 228 there is a direct reference to the Saramaka case; see IACtHR, *Saramaka v. Surinam. Preliminary Objections, Merits, Reparations, and Costs Series C No. 172* para 134 (2007).

is their respective treaties' provisions on property; see Article 21.1 of the 1969 American Convention on Human Rights and Article 14 of the 1981 African Charter of Human and Peoples Rights.

The FPIC requirement is included in several provisions of non-binding UN Declaration on the Rights of Indigenous Peoples (UNDRIP), with the strictest wording in the provisions on relocation and storage or disposal of hazardous materials ('no… without…[FPIC]').[38] In addition to these two situations that are deemed to require FPIC, the Inter-American Court of Human Rights (IACtHR) specifies that the state has a *duty* to obtain FPIC in cases of 'large-scale development or investment projects that would have a major impact…'[39] This 'major impact' requirement must be considered to be similar to the first situation identified by the World Bank's Environmental and Social Framework (ESF) and the World Bank's International Finance Corporation's (IFC) Performance Standards (PS) as requiring FPIC, namely 'adverse impacts on land and natural resources.'[40] In sum, therefore, there are four situations where a project cannot proceed if no consent has been given by the affected community or indigenous peoples: (i) major impacts on land and resource access, (ii) relocation, (iii) risks to culture, and (iv) risks resulting from storing of hazardous material.

Hence, human rights treaties are increasingly applied in the context of conserving land and natural resources, but weak implementation of court rulings in addition to few sanctions is a real problem[41]

5 DETERMINACY: CLEARNESS OF RULES

How clear are the rules, understood as a specification of the more general norms and are states approving of the development of rules that take place through the jurisprudence of international courts and practice of the UN treaty bodies? Some of these new interpretations have also influenced REDD+.

As seen above, the FPIC approach has been successfully applied particularly in the Inter-American human rights system. No legislation in the Americas has a FPIC requirement, only a consultation requirement.[42] Only the Philippines' legislation explicitly specifies a FPIC requirement.[43] Moreover, no human rights treaty

38 UNDRIP, note 31 above, Articles 10 and 29.2, respectively. The other provisions, all of which apply the term 'shall', are Article 11.2 (taking of property), Article 19 (measures that may affect indigenous peoples) and Article 32.2 (projects affecting land and natural resources).

39 IACtHR (n 37) para 134 (2007).

40 IFC, International Finance Corporation, *IFC Performance Standards on Environmental and Social Sustainability* (2011) <https://www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES> accessed 3 April 2018, PS 7, paras. 13-15; The World Bank, *The World Bank Environmental and Social Framework* (2016) <http://documents.worldbank.org/curated/en/383011492423734099/pdf/114278-REVISED-Environmental-and-Social-Framework-Web.pdf> accessed 3 April 2018, ch. 7, para. 24(a).

41 The Saramaka ruling by the IACtHR (n 37) has not been adequately complied with, see CERD, Request to Surinam (2012) <www.ohchr.org/Documents/HRBodies/CERD/EarlyWarning/CERD_Suriname.pdf> accessed 3 April 2018; and Association of Saramaka Authorities and the Forest Peoples Programme, *Request for Consideration of the Situation of the Saramaka People of Suriname under the UN Committee on the Elimination of Racial Discrimination's Urgent Action and Early Warning Procedures* (2013) <www.forestpeoples.org/sites/fpp/files/publication/2013/02/urgent-action-procedure-request-saramaka-surinamefeb2013.pdf> accessed 3 April 2018. Surinam reported on its response to these two requests; noting the 'complexity in implementing the judgment', see *CERD/C/SUR/13-15* paras. 13 and 14 (2014), with CERD reiterating its 'serious concern about the delay … in implementing these decisions'; see CERD, *CERD/C/SUR/CO/13-15* para. 29 (2015).

42 IACtHR, *Kichwa Indigenous People of Sarayaku v. Ecuador. Merits and reparations Series C No. 245* notes 190-199 and 201-214 (2012).

43 Haugen (n 34) 251. The Philippines' Indigenous Peoples Rights Act of 1997 (Republic Act No. 8371) says in Article 3(g) that FPIC: '[S]hall mean the consensus of all members of the ICCs/IPs to be determined in accordance with their respective customary laws and practices, free from any external manipulation, interference coercion, and obtained after fully disclosing the intent and scope of the activity, in a language and process understandable to the community.'

include a FPIC requirement. The only inclusion of FPIC is Convention 169 concerning Indigenous and Tribal Peoples in Independent Countries (ILO 169), that specifies in Article 16.2 that relocation of indigenous peoples 'shall take place only with their free and informed consent.' Moreover, the basis for the judgments by the IACtHR is Article 21.1 that applies the term 'his property' (singular). It has nevertheless been interpreted by the IACtHR to be exercised also as a collective right. While space does not allow more examples, the given examples illustrates the tendency by regional courts and UN treaty bodies to interpret their respective treaties beyond what the specific wording explicitly allows for.

REDD+ is a kind of PES, with more explicit performance requirements and safeguard mechanisms as compared to PES. Initially only termed 'RED', a decision on reduced emissions from forests was made at the Conference of the Parties' meeting in Bali in 2007,[44] resulting from the acknowledgement that approximately 20 per cent of global greenhouse gas emissions result from deforestation.

REDD+ is implicitly recognized by Article 5.1 of the 2015 Paris Agreement, recognizing carbon 'sinks and reservoirs', including forests. Article 5.2 anchors all existing REDD+ decisions taken by the UNFCCC Conference of the Parties into the legally-binding framework of the Paris Agreement and thereby making REDD+ part and parcel of mitigation action. The last part of Article 5.2 emphasizes the 'integral and sustainable management of forests' as well as the 'non-carbon benefits associated with such approaches.'

REDD+ has developed associated safeguards, being derived from binding and non-binding human rights instruments. While the term 'safeguards' is not explicitly applied in the Paris Agreement, the development of REDD+ financial mechanisms have been accompanied by an elaboration of such safeguards; primarily through as a result of concerns that REDD+ measures might be detrimental for indigenous peoples' and other forest-dwelling local communities' access to and use of the forests that will be covered by REDD+ measures. Such safeguards were outlined by the 2010 Conference of the Parties.[45] However, the World Bank's Forest Carbon Partnership Facility (FCPF) refers to the 'safeguard policies of the WB as a minimum acceptable standard'.[46] Central to such safeguards is the so-called Strategic environmental and social assessment.[47]

The 2010 COP safeguards and the World Bank's safeguards, adopted in 2016[48] scheduled to be operative in 2018 stands in addition to the IFC's Performance Standards (PS), operative from 2012.-[49] The two emerged independently of each other, and they are not identical. The PS contains eight different standards, and the ESF includes ten different chapters, with two last and additional chapters covering financial intermediaries and engagement. The structure and basic content of the first eight chapters are similar between the PS and the ESF, with some deviations, however.

When analyzing World Bank-developed safeguards, PS 7 and ESF chapter 7 on indigenous peoples are most relevant. ESF has a wider scope, as it also applies to 'Sub-Saharan African Historically Underserved Traditional Local Communities'.[50] Hence, while the term indigenous peoples is used below, it encompasses African traditional communities.

The IFC's PS and the World Bank's ESF are the most comprehensive standards, and the IFC standards are applied by various actors involved in project financing, constituting a much wider scope of application than REDD projects. As seen in Section 4 above, FPIC has a relatively weak embedding in international law,[51] but is increasingly applied in a number of voluntary certification schemes. The World Bank and the IFC require FPIC in three situations involving indigenous peoples: (i) adverse impacts on land and natural

44 UN Framework Convention on Climate Change Conference of the Parties (UNFCCC-COP), *Decision 2/CP.13 Reducing emissions from deforestation in developing countries: approaches to stimulate action* (2007).

45 UNFCCC-COP, *Decision 1/CP.16*, Appendix I, para. 2 (2010), some expressing general concerns ('reduce displacement of emissions').

46 Forest Carbon Partnership Facility, *Common Approach to Environmental and Social Safeguards for multiple delivery partners* (2014), 1, para. 2 <https://www.forestcarbonpartnership.org/sites/fcp/files/2014/February/Common%20Approach%20Fact%20Sheet_FINAL.pdf> accessed 3 April 2018.

47 ibid 2.

48 The World Bank (n 40).

49 IFC (n 40).

50 The World Bank (n 40) chapter 7.

51 For a more detailed analysis of the FPIC requirement, see Haugen (n 34).

resources; (ii) relocation; and (iii) significant impacts on cultural heritage, with a specification in the IFC PS 7 that this must be 'critical' heritage.[52] Moreover, if 'relocation is unavoidable the client will not proceed with the project unless FPIC has been obtained as described above.'[53] This requirement applies, however, only as long as the IFC is involved in project.

REDD safeguards identify particularly the rights of indigenous peoples as well as forest-dependent communities - if they 'share common characteristics with indigenous peoples and whose underlying substantive rights are significantly implicated…'[54] Another notable aspect of the UN-REDD Guidelines is that they present the specific criteria of FPIC by referring to a report from a UN workshop. The UN-REDD Guidelines claim erroneously that the agreement of this workshop has been 'endorsed'.[55]

Hence, both the UN-REDD FPIC Guidelines and the ESF of the World Bank go beyond the wording of international human rights treaties, including ILO 169 in the following ways. First, by including forest-dependent communities. Second, by introducing FPIC criteria from a workshop report. Third, by extending FPIC requirements to African traditional communities.

This implies lack of determinacy, but the development is nevertheless important to 'ensure that the development process fosters full respect for the human rights, dignity, aspirations, identity, culture, and natural resource-based livelihoods…'[56] The term 'aspirations' can be read as falling within the scope of the right of peoples to freely pursue their political, economic, social and cultural development, as recognized in common Article 1.1 of the ICESCR and the ICCPR. Transformation of land, irrespective of whether it is owned by or under customary use by indigenous peoples, might potentially have considerable impacts on greenhouse gas emissions.

The problems on the ground relate less to inconsistent international norms, and more to inadequate domestic implementation. A study of 23 REDD projects - in six countries on three continents - has found that the main problems - in ranked order - are (i) unclear tenure; (ii) disadvantageous economics; and (iii) inadequate governance.[57] Another study identifies four types of costs relating to REDD+ project implementation: opportunity, transaction, implementation, and monitoring costs, noting that much less is known on opportunity costs from forest degradation as compared to deforestation.[58]

Approximately half of these 23 REDD projects were merely continuation of previous Integrated Conservation and Development Projects (ICDPs),[59] having a new labeling. Seeking to make the projects more performance-based and document such performance has implied a lot of time spent on learning. Moreover, MRV (monitoring, reporting, verifying) requires high-level expertise, acting without the active participation of the communities. The large CIFOR review of REDD+ finalized in 2015 was cautiously optimistic about increased funding resulting from the inclusion of REDD+ measures in a future climate agreement.[60] So far, there is no evidence that the entry into force of the Paris Agreement in 2016 has led to a greater interest in REDD+ funding among governments and for-profit actors.

Therefore, states have been hesitant in approving the development of rules done by international courts and UN treaty bodies and in providing funding for projects

52 IFC (n 40) PS 7, paras. 13-17; the specification is in para. 16; World Bank (n 40) chapter 7, para. 24.

53 IFC (n 40) para. 15.

54 UN-REDD Programme, *Guidelines for Free, Prior and Informed Consent* 12 (UN-REDD Programme 2013).

55 ibid 18; for details, see Haugen (n 34) 271-272; see also ibid 254n23 and 261n68.

56 IFC (n 40) PS 7, first objective; World Bank (n 40) chapter 7, first objective. Moreover, the IFC PS includes references to human rights in PS 4, objective 2 (community health) and applying to business responsibility to respect human rights, in line with pillar 2 of the UN Guiding Principles on business and human rights (UN Human Rights Council, *A/HRC/17/31,* Annex (2011)); see IFC (n 40) PS 1, para. 3.

57 William D Sunderlin and others 'REDD+ at a Critical Juncture: Assessing the Limits of Polycentric Governance for Achieving Climate Change Mitigation' (2015) 17(4) *International Forestry Review* 400, 407.

58 Amy Ickowitz, Erin Sills and Claudio de Sassi, 'Estimating Smallholder Opportunity Costs of REDD+: A Pantropical Analysis from Households to Carbon and Back' (2017) 95 *World Development* 15,23.

59 William D Sunderlin and others, *The Challenge of Establishing REDD+ on the Ground. Insights from 23 Subnational Initiatives in Six Countries, CIFOR Occasional Paper 104* (CIFOR, 2015).

60 ibid vii.

that seek to preserve forests while ensuring the rights of the indigenous and traditional communities depending on these forests.

6 SUSTAINABILITY: ABILITY TO ADOPT TO NEW CIRCUMSTANCES

While the term sustainability is generally understood as referring to improvements in the social, economic and ecological pillar for present and future generations, the term 'durable' with the ability to 'withstand shocks' was chosen by Victor and Keohane when identifying its core.[61]

Unlike the other approaches, the criticisms against the PES approach has mostly gone under the radar. Is there however, a need for better safeguarding elements in PES projects?

The PES approach does not have adequate norms, rules and procedures to allow for calling it a regime, but several UN institutions have approved PES,[62] presented as a 'beneficiary pays principle'.[63] Unlike REDD-projects, PES projects are not performance-based, but the rationale is about valuing 'services' that are presently under-valued: supporting (earth, plants, water, air), regulating (cleaning up, sequestrating, pollinating, and combatting diseases), providing (food, other plants and genetic resources) and cultural-aesthetic (the non-material dimension).[64]

In addition to better conservation, UNEP argues that 'PES schemes offer a new source of income for land management, restoration, and conservation…'[65] The overall PES approach is well placed within a 'green economy', a term first applied in 1989,[66] but gaining world-wide attention during the 2012 Summit on Sustainable Development wherein it was one of the three main themes.[67]

Costa Rica has for many decades been seen as a modal example in conservationist strategies.[68] A study finds that its national PES programme has become rooted in the country's conservation policy, been able to attract funds from the 'carbon markets', provided income for indigenous peoples and improved tenure among small-holders.[69] Other findings give reasons for concern, however, as the participation in the PES programs are predominantly legal entities, not community representatives.[70]

PES projects worldwide have two main approaches: asset-building or activities-restricting. The funding can come from governments, for-profit actors and non-profit actors. Two recent metastudies on PES found that the different actors have distinct approaches regarding what type of PES projects they do fund, that user-funded projects are more efficient,[71] and that few

61 Keohane and Victor (n 5) 17.

62 Food and Agriculture Organization (FAO), the UN Economic Commission for Europe (UNECE) and UNEP, *The Value of Forests – Payments for Ecosystem Services in a Green Economy Geneva Timber and Forest Study Paper 34* (2014); UNDP, *Payments for Ecosystem Services* <www.undp.org/content/sdfinance/en/home/solutions/payments-for-ecosystem-services.html> accessed 3 April 2018.

63 Ibid (UNDP) 1.

64 Norway is one of the relatively few states that have commissioned a study on PES; see NOU 2013:10. Naturens goder – om verdier av økosystemtjenester (Oslo: Departementenes servicesenter 2013); for a summary, see <https://www.regjeringen.no/contentassets/c7ffd2c437bf4dcb9880ceeb8b03b3d5/en-gb/pdfs/nou201320130010000engpdfs.pdf> accessed 3 April 2018.

65 UNEP, *Fresh look-back at a Payment for Ecosystem Services (PES) project in Uganda* (2016) <www.unep.org/stories/story/fresh-look-back-payment-ecosystem-services-pes-project-uganda> accessed 3 April 2018.

66 David Pearce, Anil Markandya and Edward B Barbier, *Blueprint for a Green Economy* (Earthscan 1989).

67 UN General Assembly, *A/RES/66/288, The Future We Want* (2012), para. 12. The content of a green economy is specified in para. 56 to encompass: (i) poverty eradication; (ii) sustained economic growth, (iii) social inclusion; and (iv) maintaining the Earth's ecosystems. The term 'green economy' does not feature in the outcome document from the UN summit adopting the 17 sustainable development goals (SDGs); see UN General Assembly, A/RES/70/1, Transforming Our World: The 2030 Agenda for Sustainable Development (2015).

68 Ina Porras and others, *Learning from 20 Years of Payments for Ecosystem Services in Costa Rica* (IIED 2013).

69 ibid 62-63.

70 ibid 64. Four proposals for improvement are presented: use simple indicators, develop impact evaluation tools, identify impacts on social groups; and improve cost-effectiveness.

71 On user-financing vs. government-financing, see Sven Wunder, Stefanie Engel and Stefano Pagiola, 'Payments for Environmental Services in Developing and Developed Countries'(2008) 65(4) *Ecological Economics* 834.

studies have assessed both the impact on social well-being and the environment.[72] A third recent meta-study is more critical, and found no evidence of a 'win-win' (social and environmental) impact.[73]

Application of a PES approach in agriculture is promoted particularly through governmental funding.[74] Farmers' actions can both enhance and degrade ecosystems.[75] There are highly diverse approaches to agriculture, from organic agriculture,[76] via agro-ecology,[77] and food sovereignty approaches,[78] to conventional agriculture and industrial large-scale agriculture.[79]

On the face of it, PES might be most appropriately applied in the context of agroecology, which focuses on 'improving soil conditions … recycling … integrating crops and livestock; diversifying … and focusing on interactions …'[80] These efforts must be considered to be essential in a conservationist thinking as defined in the article's introduction.

In summary, as PES projects are non-performance based and have inadequate sustainability criteria and tools to measure sustainability outcomes unlike REDD projects, the future (durability) of the PES approach will depend on the introduction of some form of performance and sustainability criteria.

7 EPISTEMIC EMBEDDING: SCIENCE-BASED POLICIES

In this brief section analyzing consistency between rules and scientific knowledge, I will focus on the carbon markets. In accordance with the logic of 'cap and trade', there should be no increase in the emissions and the most cost-effective burden-sharing is identified. Based on what has been found in the review of the CDM projects,[81] as well as the metastudies on REDD projects and on PES projects,[82] is there a need for totally new approaches?

Facts regarding emissions will be highlighted, as the issues of cost-effectiveness were analyzed in section 3 above. The central premise of no emission increases has not been met. It suffices to say that while considerable amounts of funds have been invested ($4.6 billion in the voluntary market;[83] $176 billion in the compliance market[84]), the increase in global CO_{2eq}

72 Driss Ezzine-de-Blas and others, 'Global Patterns in the Implementation of Payments for Environmental Services' (2016) 11(3) *PloS one* e0149847; note that three older PES metastudies are referred to in notes 34-36; see also Gunnar Köhlin and others, *In Search of Double Dividends from Climate Change Interventions. Evidence from Forest Conservation and Household Energy Transitions Report 09/15 to the EBA* (Stockholm: EBA, 2015).

73 Cyrus Samii and others, *Effects of Payment for Environmental Services (PES) on Deforestation and Poverty in Low and Middle Income Countries: A Systematic Review, Campbell Systematic Reviews 2014:11* (The Campbell Coalition 2014).

74 Ezzine-de-Blas and others (n 72) 9

75 UNEP, *Payments for Ecosystem Services in Agri-ecosystems* (undated) <www.unep.org/resourceefficiency/what-we-do/sustainable-lifestyles/food-and-food-waste/payments-ecosystem-services-agri-ecosystems> accessed 3 April 2018.

76 FAO, *Meeting the food security challenge through organic agriculture* (2007), <www.fao.org/newsroom/en/news/2007/1000550/index.html> accessed 3 April 2018. The report referred to (FAO, *OFS/2007/5 Organic Agriculture and Food Security* (2007)) is no longer available on FAO's home page.

77 [Former] Special Rapporteur on the right to food, *A/HRC/16/49, Agroecology and the Right to Food* (2011) applying in para. 12 Altieri's definition saying that agroecology is the 'application of ecological science to the study, design and management of sustainable agroecosystems.'

78 International Assessment of Agricultural Knowledge, Science and Technology for Development Global Report 10 (2009), defining food sovereignty as 'the right of peoples and sovereign states to democratically determine their own agricultural and food policies.'

79 Arguments for large-scale farming approach are presented by the World Economic Forum (WEF), *Putting the New Vision for Agriculture into Action: A Transformation Is Happening* (2012), noting, however on p 16 that large-scale land purchases is 'complex and sometimes controversial…'; a similar approach is taken by WEF, New Economic Partnership for Africa's Development (NEPAD) and African Union (AU) in their 'Grow Africa' initiative, launched in 2011. The World Bank identifies 'high risks' and 'lack of success' involved with large-scale mechanized grain farming; see The World Bank, *Growing Africa: Unlocking the Potential of Agribusiness* 88 (2013). All promote a multistakeholder approach, involving NGOs, IGOs, ministries and corporations.

80 [Former] Special Rapporteur (n 77) para. 12.

81 Cames and others (n 31).

82 For the metastudies, see notes 57-59 and 71-73 above, respectively.

83 Kelley Hamrick and Allie Goldstein, *Raising Ambition, State of the Voluntary Carbon Markets 2016* (Forest Trends' Ecosystem Marketplace 2016) 1.

84 Pietro Galgani, Carbon Finance for Safe Water Projects (2012) <www.300in6.org/wp-content/uploads/2014/03/Carbon-Finance-Review-Report-FINAL-v2.pdf> accessed 3 April 2018.

emissions was 3.2 percent annually from 2000-2009, after the entry into force of the Kyoto Protocol, while the annual increase was merely 1.0 percent in 1990-1999.[85]

Moreover, the EU Commission has found that those installations participating in the ETS system have achieved a reduction in CO_{2eq} emissions of only 0.4 percent over five years[86] and the reduction in annual emissions resulting from the ETS has fallen since 2008.[87] Despite this, the ETS is hailed as 'the EU's flagship tool for tackling climate change…'[88]

There is much knowledge on what has real impacts, but this knowledge has not led to policy shifts. Hence, the scientific knowledge has not been of such a kind as to overhaul carbon market policies.

8
FAIRNESS: ADEQUATE DISTRIBUTION OF BENEFITS AND NON-DISCRIMINATION

To what extent can policies and projects for natural resource conservation in the context of climate change ensure an adequate distribution of benefits and a practical way to improve the living of the most vulnerable communities and households? Human rights have proven to have some impact on correcting projects found to be harmful to indigenous peoples, but only after the harm has occurred. Those that seek a more comprehensive approach have called for Mother Earth and climate justice approaches, both terms recognized in the 13th preambular paragraph of the Paris Agreement.

Two states have legislated in order to give legal rights to Mother Earth: Ecuador through Article 71 of the 2008 Constitution acknowledging Pacha Mama, and Bolivia through legislations in 2010 and 2012. Moreover, both India and New Zealand have legislated to grant rivers legal standing.[89] We highlight the two former states' legislation.

Article 71 of the Constitution of Ecuador reads (extract):

> Nature, or Pacha Mama … has the right to integral respect for its existence… All persons, communities, peoples and nations can call upon public authorities to enforce the rights of nature.

The second paragraph includes a reference to 'principles', recognized in chapter 1 of the Constitution, encompassing 'equitable redistribution of resources and wealth to enable access to the good way of living' (Article 3.5). It seems justified to term the Pacha Mama approach in the Ecuadorian Constitution essentially spiritual. Spirituality encompasses one's relationships with oneself, others, nature and the transcendent 'that nurtures and celebrates wholeness'.[90]

So far, two Ecuadorian court rulings have explicitly applied the rights of nature,[91] both rulings finding that a violation had taken place.

85 The figures are found at <https://www.green4sea.com/wp-content/uploads/2015/12/Carbon-dioxide-emissions-from-fossil-fuels.jpg> accessed 3 April 2018.

86 EU Commission, *COM(2017) 48 Final, Report on the Functioning of the European Carbon Market* (EU 2017) 34.

87 Ingvild Sorhus, Yan Qin and Marta Wroniszewska, *EU Emissions: What's Happening in the Carbon Market?* (2017); figures from 'EU ETS emissions 2008-2016, in Mt' <https://blogs.thomsonreuters.com/financial-risk/commodities/eu-emissions-whats-driving-the-carbon-market> accessed 3 April 2018.

88 EU Commission (n 86) 34.

89 Ashish Kothari, Mari Margil and Shrishtee Bajpai, 'Now Rivers Have the Same Legal Status as People, We Must Uphold Their Rights' *The Guardian* (London, 21 April 2017) <https://www.theguardian.com/global-development-professionals-network/2017/apr/21/rivers-legal-human-rights-ganges-whanganui> accessed 3 April 2018.

90 John W Fischer, 'Getting the Balance: Assessing Spirituality and Well-being Among Children and Youth' (2009) 14(3) International Journal of Children's Spirituality 273, 275; Rebecca Nye, 'Identifying the Core of Children's Spirituality' *in* David Hay with Rebecca Nye (eds), *The Spirit of the Child* (2nd rev. edn Jessica Kingsley 2006)115.

91 I have not found the full text of the ruling by Esmeraldas Provincial Court, 11 January 2017; see Julianne A Hazlewood and the communities of La Chiquita and Guadualito, *Court Issues Ruling in World's First "Rights of Nature" Lawsuit* (2017) <https://intercontinentalcry.org/court-issues-ruling-worlds-first-rights-nature-lawsuit> accessed 3 April 2018. For the 2011 ruling, see *Wheeler v. Director de la Procuraduria General Del Estado de Loja, Juicio No. 11121-2011-0010* (2011) (30 March) <http://blogs.law.widener.edu/envirolawblog/2011/07/12/ecuadorian-court-recognizes-constitutional-right-to-nature> accessed 3 April 2018; see also Erin Daly, 'The Ecuadorian Exemplar: The First Ever Vindications of Constitutional Rights of Nature', 21/1 *Review of European Community & International Environmental Law* 63 (2012).

Of relevance is also the history of the Yasuní national reserve. A trust fund to be administered by the Multi-Partner Trust Fund Office (MPTF Office) of the UN Development Programme (UNDP),[92] intended to collect funds to *preserve* the Yasuní national reserve, was discontinued by President Correa in 2013.[93] This decision also implied that the reserve was made available to oil drilling. The attempt of preserving Yasuní can be seen as an example of PES, but the Yasuní experience shows that the Mother Earth approach has not been adequately strong to provide for a new direction in resource conservation.

Turning to Bolivia, the Law of the Rights of Mother Earth (Law 071; originally 'Ley de Derechos de la Madre Tierra') was adopted by Bolivia's Legislative Assembly in December 2010.[94] Subsequently, in October 2012 the 'Framework Law of Mother Earth and Integral Development for Living Well' (Law 300; original: 'La Ley Marco de la Madre Tierra y Desarrollo Integral para Bien') was adopted.

Article 4 of the original law gives a wide definition of 'life systems' and Article 5 defines Mother Earth as 'a collective subject of public interest…' and declares both Mother Earth and life-systems as rights holders.[95] These rights are to be protected by the Defensoría de la Madre Tierra, that is envisaged in Article 10 of the 2010 law and Article 52 of the 2012 law, specifying that its mandate must be specified by additional legislation.

However, the current multiyear strategy of Bolivia's Defensoría del Pueblo says that it will protect the rights of Mother Earth.[96]

We see that a holistic perspective is applied, but it is an open question as to how this perspective can guide decision-making processes. Moreover, unlike the Ecuadorian case with two court rulings referring to rights of Mother Earth, there are no rulings from Bolivia.

Bolivia authored the text of a 2009 UN resolution that was sponsored by total 68 states,[97] designating 22 April as International Mother Earth Day.[98] This is the peak so far in recognition of Mother Earth.[99]

Hence, the Mother Earth approach - not being adequately robust to be termed a 'regime' - has not proven adequate in order to provide a policy framework for the conservation of natural resources. This does not imply that strategies for climate justice are not worthy of being further promoted.

9 COMPARING THE APPROACHES

This review of the five regimes or approaches has revealed that there are some overlaps, most notably between PES and REDD+ and between safeguard measures and human rights. Moreover, the rights of future generations has been sought encompassed within human rights, but so far on a declaratory level. The Mother Earth approach is still too distinct and unique to interact with the human rights regime, but

92 The full name was 'Yasuni Ishpingo Tambococha Tiputini Trust Fund'.

93 UNDP, 'Over 20 Percent of Yasuni ITT Trust Fund Contributions Have Been Reimbursed' (2014) <www.undp.org/content/undp/en/home/presscenter/articles/2014/02/26/undp-statement-on-decision-by-government-of-ecuador-to-conclude-yasun-itt-initiative> accessed 3 April 2018; see also Jonathan Watts, 'Ecuador Approves Yasuni National Park Oil Drilling in Amazon Rainforest' *The Guardian* (London, 16 August 2013) <https://www.theguardian.com/world/2013/aug/16/ecuador-approves-yasuni-amazon-oil-drilling> accessed 3 April 2018; see also Humphreys (n 3) 10.

94 For a translated version, see *Law of The Rights of Mother Earth* (2010) <www.worldfuturefund.org/Projects/Indicators/motherearthbolivia.html> accessed 3 April 2018.

95 The seven rights as recognized in Article 7 of the 2010 Act are: life, diversity of life (not genetically altered), water, clean air, equilibrium, restoration (if affected by human activities), and pollution-free living.

96 Defensoría del Pueblo, *Plan Estratégico Institucional 2016-2020* 12 (2016) <www.defensoria.gob.bo/archivos/PEI-2016-2020.pdf> accessed 3 April 2018.

97 UN General Assembly, *A/63/PV.80, Sixty-third session, 80th plenary meeting*, 2 (22 April 2009).

98 UN General Assembly, *A/RES/63/278, International Mother Earth Day*, para. 1 (2009) (adopted without a vote).

99 The 22 April was celebrated as Earth Day before the 2009 decision on Mother Earth Day; the Earth Day Network claims to be working with more than 50,000 partners, having one billion participants <http://www.earthday.org/about> accessed 3 April 2018.

human rights actors receive inspiration from the Mother Earth approach. Hence, the term 'conscious parallelism'[100] captures the fact that while these approaches and regimes operate independent of each other, there are interactions.

However, it is difficult to identify an 'orchestrator' in these diverse regimes. One explanation is that there are various 'safeguards' developed by various actors: the original 2010 COP safeguards,[101] the 2012 IFC's PS and the 2016 World Bank's ESF,[102] the 2013 UN-REDD safeguards applying specifically to FPIC.[103] As specified by the World Bank's Forest Carbon Partnership Facility (FPCF), the World Bank's safeguard policies represent 'a minimum acceptable standard'.[104]

A new approach to climate change mitigation project planning and implementation must build on human rights, either implicitly or explicitly. Some central concerns that could guide this effort will be identified.

First, while the World Bank has contributed positively to norm-setting overall, it does not have and should not have any role in the development or monitoring of human rights.

Second, environmental rights, that encompass FPIC and rights of future generations, as well as environmental obligations of states, does provide a potential for a more holistic decision-making. In addition to the three pillars of sustainable development: ecological, economic and social, a fourth pillar has been proposed: governance.[105] Governance applies to business actors as well, most explicitly embedded in the due diligence approach, being about identifying, preventing, mitigating and accounting for negative human rights impacts[106] as further specified in the UN Guiding Principles on business and human rights.[107]

Third, extraterritorial obligations should be clarified further. In the realm of ESC rights, such obligations are specified by recognized scholars as applying to human rights impacts outside of one's own state, characterized by the exercise of 'authority or effective control … [resulting in] acts or omissions [with] foreseeable effects …'[108] The scope of extraterritorial obligations is contested,[109] but it should be noted that only one human rights treaty (ICCPR) has an explicit jurisdictional limitation. International obligations are particularly explicit in the ICESCR (Articles 2.1, 11 and 12) and the Convention on the Rights of the Child (Articles 4 and 45).

Fourth, the social pillar in sustainable development must be operationalized to encompass human rights.[110] Those sustainability schemes that are developed by industry alone in the realm of biofuels include merely ecological criteria.[111]

Turning to the theoretical contributions that provided the framework for this article, there no explicit human

100 Abbott (n 5) 583.

101 UNFCCC-COP (n 45).

102 IFC (n 40); the World Bank (n 40).

103 UN-REDD Programme (n 54).

104 Forest Carbon Partnership Facility, *Common Approach to Environmental and Social Safeguards for multiple delivery partners* (2014), 1, para. 2 <https://www.forestcarbonpartnership.org/sites/fcp/files/2014/February/Common%20Approach%20Fact%20Sheet_FINAL.pdf> accessed 3 April 2018.

105 Helen Clark, The Importance of Governance for Sustainable Development (2012) <www.undp.org/content/undp/en/home/presscenter/speeches/2012/03/13/the-importance-of-governance-for-sustainable-development.html> accessed 3 April 2018.

106 Organization for Economic Cooperation and Development (OECD), *Responsible business conduct for institutional investors. Key considerations for due diligence under the OECD Guidelines for Multinational Enterprises* 8 (2017); OECD, *OECD Guidelines for Multinational Enterprises* ch 4 para. 41 (Paris: OECD, 2011).

107 UN Human Rights Council (n 56) paras. 17-21.

108 Maastricht Principles on Extraterritorial Obligations of States in the Area of Economic, Social and Cultural Rights (Heidelberg: ETO Consortium 2013), principle 9; see also principle 12 on attribution of state responsibility for the conduct of non-state actors.

109 To avoid accusations that extraterritorial obligations can be used to justify interference in other states, extraterritorial obligations should primarily be promoted by states specifying requirements on domiciled companies' conduct wherever these companies operate; see Olivier de Schutter, 'Towards a New Treaty on Business and Human Rights' (2015) 1(1) *Business and Human Rights Journal* 41,47 (2015).

110 OECD, *Recommendation of the Council on Common Approaches for Officially Supported Export Credits and Environmental and Social Due Diligence* (the 'Common Approaches') (2016) 5, defining social impacts as 'adverse project-related human rights impacts'.

111 Hans Morten Haugen, 'Coherence or Forum-shopping in Bioenergy Sustainability Schemes?' (2015) 33(1) *Nordic Journal of Human Rights* 1.

rights references, however. When Victor and Keohane apply their own evaluative criteria to assess regime complexes, they are much more critical of the CDM system established in accordance with Article 12 of the Kyoto Protocol, compared to the quota trading system established in accordance with Article 17 of the Kyoto Protocol.[112] Moreover, they are positive to the REDD+ approach, but argue for a 'diversity of approaches.'[113]

Their article does not analyze PES explicitly, but based on their positive assessment of REDD+ and the potential for collecting funds from the carbon market, it seems reasonable to conclude that they would endorse PES. PES has its weaknesses and as specified above, in order to improve PES projects there is a need for impact evaluation tools, identifying social impacts.[114]

Eligible carbon markets under CDM projects merely have to be 'sustainable' and comply with domestic policies and regulations.[115] These requirements, while respecting state sovereignty, might imply approval of bad-quality projects, due to improper assessment of sustainability and inadequate policies and regulations. The diversity within the carbon market projects makes it difficult to apply Victor and Keohane's evaluative criteria.

Addressing the group ownership theory developed by Ostrom,[116] the article has demonstrated that there is an under-utilized potential for human rights to protect the environmental rights in general and in the context of indigenous peoples and traditional communities in particular. An adequately broad consultation process, FPIC or some other form of a rights-embedded legal protection for communities should be part of a required impact assessment or certification scheme approval.

It seems difficult to conclude that any of the approaches or regimes specified above are able to change the present course of the global community - that can be characterized as a certain path towards an uncertain future. The solutions are prohibitions, effective dissemination of clean technology and a global CO_2 tax that can shift patterns of production and what is produced.[117]

10 CONCLUSION

The article has studied a range of various existing regimes and approaches. The analysis has sought to identify their inherent characteristics, strengths and weaknesses.

The still dominant approach involves payments and offsets, with safeguard mechanisms being increasingly applied, influenced by substantive human rights requirements. By being included in the Paris Agreement and the ICAO's CORSIA, REDD projects might be attractive for carbon offsets trading, but governmental funding, bilaterally and through the Green Climate Fund, are the present modes of funding. The Mother Earth approach is increasingly recognized and human rights have been applied in the context of particular communities, but primarily after the harm has occurred. Human rights have influenced the safeguards developed by various actors, including the World Bank.

The human rights approach has an underutilized potential. Moreover, human rights of future generations are included in some constitutions and legislations,[118] but not yet in a manner that has led to court rulings affirming such rights.

112 Keohane and Victor (n 5) 15 arguing for 'competition between offset schemes…'; see also 17, arguing for 'a multitude of rules' as this would be 'effective'. On CDM; see ibid 15, describing 'dysfunctions of the UNFCCC monopoly' and the 'poor administration' and lack of 'cost-effective' thinking within the CDM.

113 Keohane and Victor (n 5) 18.

114 Porras and others (n 68) 64.

115 The World Bank (n 28).

116 Ostrom and others (n 6), Ostrom (n 6); Ostrom (n 6).

117 On the proposed Carbon Fee and Dividend (CFD), Bibi van der Zee, 'James Hansen Rails Against Cap-and-Trade Plan in Open Letter' *The Guardian* (London, 12 January 2010) <www.theguardian.com/environment/2010/jan/12/james-hansen-carbon-emissions> accessed 3 April 2018. A recent survey in the USA showed surprising support for the CFD: 67 per cent overall and 54 percent among Republican voters were in favour; see Climate Leadership Council, The Conservative Case for Carbon Dividends 3 (2017), https://www.clcouncil.org/wp-content/uploads/2017/02/TheConservativeCaseforCarbonDividends.pdf (accessed 3 April 2018).

118 Norwegian Constitution and Lewis, note 36 above.

What is likely to shift states' and companies' assessments of their conduct might simply be the fact that sustainable practices lead to lower overall risks and higher returns on investments.[119]

The article has identified how international law promoted by accountability mechanisms, only to a limited extent influences national policy considerations that are crucial for natural resource conservation.

119 Gordon L Clark, Andreas Feiner and Michael Viehs, *From the Stockholder to the Stakeholder: How Sustainability Can Drive Financial Outperformance* (Smith School of Enterprise and the Environment, 2015); this is a metastudy reviewing 200 studies, finding that 88 per cent of the companies 'with robust sustainability practices demonstrate better operational performance…' than other companies.

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